


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (original) An information management system comprising a plurality of nodes connected to each other via a network, wherein each of the plurality of nodes comprises:

a storage for storing information to be shared among the plurality of nodes; and

 an update manager for managing an update of the information using an updated minimum unit of the information, the updated minimum unit including an updated portion of the information.

2. (original) The information management system according to claim 1, wherein, when an update occurs at the node, the update manager transmits an updated minimum unit of the information to another node.

3. (original) The information management system according to claim 1, wherein, when an update occurs at the node, the update manager transmits update information to another node,

the update information including identification information identifying an updated minimum unit of the information.

4. (original) The information management system according to claim 2, wherein, when receiving an updated minimum unit of the information from another node, the update manager updates a corresponding minimum unit of the information stored in the storage using the updated minimum unit received.

5. (original) The information management system according to claim 1, wherein the information comprises a plurality of elements which are hierarchically structured, wherein a minimum element including the updated portion of the information is determined as the updated minimum unit.

6. (original) The information management system according to claim 1, wherein the update manager manages the update of the information using an update time at which the update of the information occurs,

wherein, when an update occurs at the node, the update manager transmits update information to another node, the update information including the update time.

7. (original) The information management system according to claim 6, wherein, when receiving the update information from another node, the update manager updates the

information stored in the storage based on the update information received.

8. (original) The information management system according to claim 7, wherein

the update manager determines whether the update time of the update information received is later than an updated time of the information currently stored in the storage, and

when the update time of the update information received is later than an updated time of the information currently stored in the storage, the update manager requests transfer of an updated minimum unit of the information.

9. (original) The information management system according to claim 1, wherein, when an update occurs at the node, the update manager transmits an updated minimum unit of the information to another node at a plurality of predetermined times.

10. (original) The information management system according to claim 1, wherein, when an update occurs at the node, the update manager transmits update information to another node at a plurality of predetermined times, the update information including identification information identifying an updated minimum unit of the information.

11. (original) The information management system according to claim 10, wherein the update manager manages the update of the information using an update time at which the update of the information occurs, the update information further includes the update time.

12. (original) The information management system according to claim 3, further comprising a control node for controlling communications between the nodes on the network,

the control node comprising:

an information manager for managing the information stored in the storage for each of the nodes;


an update information receiver for receiving an update information from a first node at which an update of the information occurs; and

an update controller for transmitting the update information received from a first node to a second node.

13. (original) The information management system according to claim 12, wherein the update controller of the control node transmits the update information received from the first node to the second node at a plurality of predetermined times.

14. (original) The information management system according to claim 12, wherein, when the second node receives the update information from the control node, the update manager of the second node updates the information stored in the storage based on the update information received.

15. (original) The information management system according to claim 14, wherein, in the second node,

 the update manager determines whether the update time of the update information received is later than an updated time of the information currently stored in the storage, and

when the update time of the update information received is later than an updated time of the information currently stored in the storage, the update manager uses the identification information to request transfer of an updated minimum unit of the information from the control node.

16. (original) The information management system according to claim 6, further comprising a control node for controlling communications between the nodes on the network,

the control node comprising:

an information storage for storing the information stored in the storage of each of the nodes;

an information manager for managing the information for each of the nodes and an update time thereof;

a update information receiver for receiving an update information from a first node at which an update of the information occurs; and

an update controller for

selecting a second node having the update time of the information stored therein, which is later than the update time included in the update information received from the first node, and

transmitting the updated minimum unit of the information identified by the identification information included in the update information received from the first node, to the second node.

17-30. (cancelled)

31. (original) An information management method in a system comprising a plurality of nodes connected to each other via a network, the method comprising the steps of:

at each of the plurality of nodes,

a) storing information to be shared among the plurality of nodes in a storage; and

b) managing an update of the information using an updated minimum unit of the information, the updated minimum unit including an updated portion of the information.

32. (original) The information management method according to claim 31, wherein the step (b) comprises the steps of:

detecting that an update occurs at the node; and

transmitting an updated minimum unit of the information to another node.

33. (original) The information management method according to claim 31, wherein the step (b) comprises the steps of:

detecting that an update occurs at the node; and

transmitting update information to another node, the update information including identification information identifying an updated minimum unit of the information.

34. (original) The information management method according to claim 32, further comprising the steps of:

at a node receiving an updated minimum unit of the information from another node,

c) updating a corresponding minimum unit of the information stored in the storage using the updated minimum unit received.

35. (original) The information management method according to claim 31, wherein the information comprises a plurality of elements which are hierarchically structured, wherein a minimum element including the updated portion of the information is determined as the updated minimum unit.

A 36. (original) The information management method according to claim 31, wherein in the step (b), the update of the information is managed using an update time at which the update of the information occurs,

wherein the step (b) comprises the steps of:

detecting that an update occurs at the node; and

transmitting update information to another node, the update information including the update time.

37. (original) The information management method according to claim 36, further comprising the step of:

at a node receiving the update information from another node,

c) updating the information stored in the storage based on the update information received.

38. (original) The information management method according to claim 37, wherein the step (c) comprises the steps of:

determining whether the update time of the update information received is later than an updated time of the information currently stored in the storage; and

A (when the update time of the update information received is later than an updated time of the information currently stored in the storage, requesting transfer of an updated minimum unit of the information.

39. (original) The information management method according to claim 31, wherein, when an update occurs at the node, an updated minimum unit of the information is transmitted to another node at a plurality of predetermined times.

40. (original) The information management method according to claim 31, wherein, when an update occurs at the node, update information is transmitted to another node at a plurality of predetermined times, the update information including identification information identifying an updated minimum unit of the information.

41. (original) The information management method according to claim 40, wherein the update of the information is managed using an update time at which the update of the information occurs, the update information further includes the update time.

42. (original) The information management method according to claim 33, wherein the system further comprises a control node for controlling communications between the nodes on the network,

the method further comprising the steps of:

at the control node,

c) managing the information stored in the storage for each of the nodes;

d) receiving an update information from a first node at which an update of the information occurs; and

e) transmitting the update information received from the first node to a second node.

43. (original) The information management method according to claim 42, wherein in the step (e), the update information received from the first node is transmitted to the second node at a plurality of predetermined times.

44. (original) The information management method according to claim 42, further comprising the steps of:

at the second node receiving the update information from the control node,

updating the information stored in the storage based on the update information received.

45. (original) The information management method according to claim 44, further comprising the steps of:

A (at the second node,

determining whether the update time of the update information received is later than an updated time of the information currently stored in the storage; and

when the update time of the update information received is later than an updated time of the information currently stored in the storage, using the identification information to request transfer of an updated minimum unit of the information from the control node.

46. (original) The information management method according to claim 36, the system further comprises a control node for controlling communications between the nodes on the network,

the method further comprising the steps of:

at the control node,

storing the information stored in the storage of
each of the nodes in an information storage;

managing the information for each of the nodes and
an update time thereof;

receiving an update information from a first node
at which an update of the information occurs;

selecting a second node having the update time of
the information stored therein, which is later than the update
time included in the update information received from the first
node; and

transmitting the updated minimum unit of the
information identified by the identification information included
in the update information received from the first node, to the
second node.

47-59. (cancelled)

60. (original) A storage medium storing a computer
program for performing information management in a system
comprising a plurality of nodes connected to each other via a

network, the computer program at each of the plurality of nodes, comprising the steps of:

a) storing information to be shared among the
A (plurality of nodes in a storage; and

b) managing an update of the information using an updated minimum unit of the information, the updated minimum unit including an updated portion of the information.

61. (cancelled)
